STRONTIUM STATISTICS

By David A. Buckingham and Joyce A. Ober

[All values in metric tons (t) unless otherwise noted]

Last modification: March 18, 2005

Year	Reported production	Reported shipments	Reported imports	Reported exports	Reported stocks	Estimated or reported apparent consumption	Estimated unit value ($/t)	Estimated unit value (98$/t)	Reported world production
1916	100					100			
1917	1,610		677			2,290	34.30	437	
1918	160		1,090			1,250	2.27	24.50	
1919	0		885			885	39.60	373	
1920	0		447			447	34.60	282	
1921	0		326			326	13.50	123	
1922	0		196			196	11.20	109	
1923	0		1,030			1,030	127	1,210	
1924	0					950	150	1,400	
1925	0		877			877	173	1,610	
1926	0		877			877	173	1,590	
1927	0		877			877	173	1,620	
1928	0		877			877	173	1,650	
1929	0		877			877	173	1,650	
1930	0		412			412	254	2,480	
1931	0		331			331	252	2,700	
1932	0		92			92	230	2,740	
1933	0		586			586	56.60	709	
1934	0		551			551	48.60	591	
1935	0		590			590	50.80	605	
1936	0		916			916	66.00	774	
1937	0		1,250			1,250	52.70	597	
1938	0		200			200	176	2,030	
1939	0		1,220			1,200	47.50	557	
1940	933		1,100			2,030	26.20	305	
1941	1,880		1,710			3,590	38.80	430	
1942	1,610		4,120			5,730	35.10	351	
1943	3,010		6,720			9,730	37.10	350	
1944	1,200		2,310			3,510	37.50	347	
1945	1,110		1,470			2,580	34.50	313	
1946	97		1,790			1,890	36.90	309	
1947	0		5,620			5,620	43.20	316	
1948	0		8,670			8,670	64.50	436	
1949	0		3,740			3,740	47.30	324	
1950	0		3,440			3,440	41.40	280	
1951	0		5,590			5,590	54.50	342	19,100
1952	0		3,790			3,790	49.20	303	9,950
1953	20		2,750			2,770	45.10	275	6,140
1954	5		1,310			1,320	40.70	247	4,230
1955	71		2,440			2,510	52.60	320	7,380
1956	1,610		3,760			5,370	51.20	307	16,100
1957			2,600			2,600	50.30	292	11,800
1958			2,670			2,670	53.40	301	10,100
1959			3,240			3,240	69.70	390	9,710
1960	0	0	2,460			2,460	60.80	335	11,500
1961	0	0	3,950			3,950	61.80	337	12,600
1962	0	0	2,980			2,980	63.30	342	11,700
1963	0	0	6,460			6,460	57.60	307	17,000
1964	0	0	8,610			8,610	58.90	310	23,800

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1965	0	0	3,880			3,880	57.00	295	14,000
1966	0	0	4,590			4,590	58.20	293	16,700
1967	0	2,050	2,230		15,600	4,640	55.30	270	10,400
1968	0	1,870	5,140		13,700	6,060	59.50	279	12,800
1969	0	1,430	11,100		12,300	14,400	53.80	239	47,000
1970	0	1,340	14,800		10,900	17,400	55.80	234	59,900
1971	0		18,100		10,900	18,100	64.20	258	112,000
1972	0		12,500		10,900	13,400	84.80	331	100,000
1973	0	7,270	13,800		3,680	14,100	173	635	93,300
1974	0	3,680	19,800			13,600	214	707	98,400
1975	0	0	10,200			12,200	206	624	53,100
1976	0	0	16,900			15,200	226	647	69,400
1977	0	0	18,000			18,000	163	438	95,300
1978	0	0	18,500			18,500	218	545	92,600
1979	0	0	20,300			20,700	260	584	95,800
1980	0	0	16,800			16,400	259	512	95,000
1981	0	0	22,000			17,400	315	565	125,000
1982	0	0	14,100			15,200	277	468	139,000
1983	0	0	20,300			20,600	238	390	152,000
1984	0	0	21,800			21,800	353	554	140,000
1985	0	0	18,600	21		18,600	487	738	163,000
1986	0	0	17,600	808		16,800	528	785	153,000
1987	0	0	21,900	1,880		20,000	500	717	183,000
1988	0	0	25,900	3,150		22,800	494	681	226,000
1989	0	0	22,600	1,310		21,300	578	760	275,000
1990	0	0	33,200	1,720		31,500	518	646	240,000
1991	0	0	24,100	1,070		23,000	555	664	199,000
1992	0	0	32,700	741		32,000	518	602	195,000
1993	0	0	26,900	260		26,600	659	743	201,000
1994	0	0	35,600	1,130		34,900	554	609	274,000
1995	0	0	33,500	1,050		32,300	700	749	311,000
1996	0	0	32,100	1,050		31,400	715	743	306,000
1997	0	0	38,500	599		37,900	794	0	264,000
1998	0	0	35,600	875		34,700	836	836	264,000
1999	0	0	40,500	2,860		37,600	806	789	322,000
2000	0	0	37,400	4,520		36,400	877	830	322,000
2001	0	0	32,100	929		31,200	892	821	350,000
2002	0	0	36,600	340		26,500	980	888	344,000

Strontium Worksheet Notes

Data Sources
Sources of data for the strontium worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR); and Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were either not available or were withheld in order to avoid disclosing proprietary data.

Reported Production
Production data for the years 1916–2002 represent the strontium content in strontium minerals, such as celestite, that were produced from domestic mines. Data for the years 1957–59 were withheld in order to avoid disclosing proprietary data. Data are reported in the MR and the MYB.

Reported Shipments
Shipment data for the years 1967–70 and 1973–74 represent the quantities of stockpile-grade celestite that were shipped annually from the National Defense Stockpile to domestic recipients. Data for the years 1957–59 were withheld in order to avoid disclosing proprietary data. Data are reported in the MYB.

Reported Imports
Import data for the years 1917–2002 represent the strontium in strontium carbonate, chromate, metal, minerals, nitrate, salts, sulfate, and other unspecified compounds that were imported into the United States. For the year 1924, import data were not available. Data are reported in the MR and the MYB.

Reported Exports
Export data for the years 1985–2002 represent the strontium content in various strontium compounds exported from the United States. Data are reported in the MYB.

Reported Stocks
Stock data for the years 1967–73 represent the quantities of stockpile-grade celestite that were held annually within the National Defense Stockpile. Data are reported in the MYB.

Estimated or Reported Apparent Consumption
Apparent consumption data for the years 1916–23, 1925–66, and 1984–93 were estimated with the following equation:

APPARENT CONSUMPTION = PRODUCTION + IMPORTS – EXPORTS.

Strontium was not produced domestically and import and export data were not available, for the years 1924. Apparent consumption datum for the year 1924 was estimated using interpolation based on the import data series from 1923 and 1925. Data are rounded to two significant figures. Apparent consumption data for the years 1967–77 are reported in the CDS and data for the years 1978–96 are reported the MCS. For the years 1997–2002, data are reported in the MYB.

Estimated Unit Value ($/t)
Unit value is defined as the value of 1 metric ton (t) of strontium apparent consumption. Unit value data for the years 1917–2002 were estimated as the total value of strontium imports including, strontium carbonate, chromate, metal, minerals, nitrate, salts, sulfate, and other unspecified compounds, divided by the total tonnage of contained strontium in these imports, all data are rounded to three significant figures. Import data for 1924 were not available. Unit value was interpolated from the unit value data series from 1923 and 1925. Data are rounded to two significant figures. Fluctuations in the unit value series are not necessarily indicative of changes in value but, instead, may reflect variations in type, quantity, and quality of the strontium imports. This is apparent for the period 1923-33 when the increase in unit value was a result of high imports of value-added intermediate products rather than strontium minerals.

Estimated Unit Value (98$/t)
The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

Reported World Production
World production data for the years 1951–2002 were reported in the MYB. Data for the years 1951–2002 represents total world production of celestite.

References
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